

Listing of Claims:

1. (currently amended) A modified system for balancing soft tissue intraoperatively during joint arthroplasty, the system being of the type having a first joint trial having an articulating surface having a curved contour, a second joint trial having an articulating surface having a curved contour, the curved contour of the articulating surface of the first joint trial being shaped to receive the articulating surface of the second joint trial, a flexible sensor array capable of being shaped to define a curved contour, the sensor array being capable of generating a signal in response to pressure, and a protector having a ~~curved contoured articulating surface~~ that has a concave curved contour and an opposite ~~curved contoured surface~~ that has a convex curved contour, the protector being capable of transmitting pressure to the sensor array, the protector having a thickness between the surface with the concave curved contour and the surface with the convex curved contour, the curved contours of the articulating ~~surfaces~~ surfaces of the first joint trial and the ~~curved contoured surfaces of the~~ curved contoured surfaces of the protector ~~and the opposite curved contoured surface of the protector being~~ curved in a plurality of intersecting cross-sections, the modified system comprising:

complementary mounting members associated with the protector and the first joint trial for temporarily securing the sensor array between the protector and the first joint trial, the complementary mounting members being sized, shaped and positioned so that the protector and the sensor array may be temporarily secured on the curved contour of the articulating surface of the first joint trial with the sensor array positioned between the curved contours of the articulating surface of the first joint trial and the curved contoured opposite surface of the protector;

wherein the sensor array is removable from protector and first joint trial without damaging the sensor array; and

wherein the complementary mounting members limit movement of the protector with respect to the first joint trial in use so that the position of the ~~articulating surface of the~~ protector is fixed relative to the articulating surface of the first joint trial during use.

2. (previously presented) A modified system for balancing soft tissue intraoperatively during joint arthroplasty, the system being of the type having a first joint trial having an articulating surface having a curved contour, a second joint trial having an articulating surface, a flexible sensor array capable of being shaped to define a curved contour, the sensor array being capable of generating a signal in response to pressure, and a protector having a curved contoured articulating surface and being capable of transmitting pressure to the sensor array, the modified system comprising:

complementary mounting members associated with the protector and one of the trials for temporarily securing the sensor array between the protector and the trial, the complementary mounting members being positioned so that the protector and the sensor array may be temporarily secured on the curved contour of the articulating surface of the trial;

wherein the sensor array is removable from protector and trial without damaging the sensor array; and

wherein the complementary mounting members limit movement of the protector with respect to the associated trial in use so that the position of the articulating surface of the protector is fixed relative to the articulating surface of the associated trial during use; and

wherein the protector comprises a first portion and a second portion joined along an axis, and wherein the first portion of the protector overlies at least a part of the curved contour of the articulating surface of the first trial and the second portion overlies at least a substantial part of the sensor array and at least a substantial part of the first portion of the protector.

3. (original) The modified system of claim 1 wherein the complementary mounting members comprise a stud and an aperture.

4. (previously presented) The modified system of claim 1 wherein the complementary mounting members are sized, shaped and positioned to allow the first joint trial and protector to be snap fit together to temporarily combine the protector, sensor array and first joint trial into an assembly for use.

5-9. canceled

10. (currently amended) A modified system for balancing soft tissue intraoperatively during joint arthroplasty, the system being of the type having a first joint trial having an articulating surface with a curved concave contour and a surface adjacent to the curved concave articulating surface, a second joint trial having an articulating surface with a curved convex contour, a flexible sensor array shaped to define a curved concave contour, the sensor array being capable of generating a signal in response to pressure, and a protector having a surface with a curved concave contour and a surface with a curved convex contour and being capable of transmitting pressure to the sensor array, the curved convex surface of the protector overlying and contacting at least a substantial part of the curved concave contour of the flexible sensor array, the curved concave surface of the protector being exposed above the sensor, the flexible sensor array, the articulating surface of the first joint trial, the curved concave surface of the protector and the curved convex surface of the protector being curved in a plurality of intersection cross-sections, the modified system comprising:

a stud extending between the protector and the surface adjacent the curved concave articulating surface of the first joint trial for temporarily fixing the position of at least part of the protector with respect to the trial.

11. canceled

12. (previously presented) A modified system for balancing soft tissue intraoperatively during joint arthroplasty, the system being of the type including a first joint trial having an articulating surface having a curved contour, a second joint trial having an articulating surface having a curved contour, a flexible sensor array associated with one of the trials and having a portion shaped to define a curved contour, the sensor array being capable of generating a signal in response to pressure, and a protector having a surface with a curved concave contour and a surface with a curved convex contour and being capable of transmitting pressure to the sensor array, the protector having a thickness between the curved concave contour and the curved convex contour, the thickness of the protector at the curved contoured surfaces being less than half the thickness of the first joint trial at the articulating surface, the sensor array being positioned between the curved contour of the articulating surface of the first joint trial and the curved contoured surfaces of the protector, the curved contour of the articulating surface of the first joint trial and the curved contoured surfaces of the protector being curved in a plurality of intersecting cross-sections, the modified system characterized in that:

positive locating features are provided so that the sensor array is positively located with respect to at least one of the protector and the first trial; and

the sensor array is separable from the associated trial and the protector both before and after use;

wherein the positive locating features include at least one positive locating feature spaced from the curved contour of the articulating surface of the first joint trial.

13. (currently amended) The modified system of claim 12 wherein the protector and at least one of the joint trials have complementary mounting~~mating~~ positioning members.

14. (currently amended) The modified system of claim 13 wherein the complementary mounting~~mating~~ positioning members comprise a recess and a protrusion.

15. (currently amended) The modified system of claim 13 wherein the complementary mounting~~mating~~ positioning members comprise an aperture and a stud so that the protector can be snap fit to the trial.

16. (currently amended) A modified system for balancing soft tissue intraoperatively during joint arthroplasty, the system being of the type including a first joint trial having an articulating surface having a curved contour, a second joint trial having an articulating surface, a flexible sensor array associated with one of the trials and being shaped to define a curved contour, the sensor array being capable of generating a signal in response to pressure, and a protector having a curved contoured surface and being capable of transmitting pressure to the sensor array, the sensor array being positioned between the curved contour of the articulating surface of the first joint trial and the curved contoured surface of the protector, the modified system characterized in that:

the sensor array is positively located with respect to at least one of the protector and the first trial; and

the sensor array is separable from the associated trial and the protector both before and after use;

wherein the protector has a first portion and a second portion joined along an axis, wherein the first portion of the protector overlies at least part of the curved contour of the articulating surface of the first trial and the second portion overlies at least a substantial part of the sensor array and a substantial part of the first portion of the protector.

17. (previously presented) The modified system of claim 12 wherein the protector is capable of being snap fit to one of the first joint trial to temporarily combine the protector, sensor array and first joint trial into an assembly for use.

18-27 cancelled

28. (previously presented) The modified system of claim 1 wherein the articulating surface of the first joint trial is concave and the articulating surface of the second joint trial is convex and wherein the complementary mounting members are spaced from the articulating surface of the first joint trial and the articulating surface of the protector.

29. (previously presented) The modified system of claim 28 wherein the first joint trial includes an additional surface adjacent to the concave articulating surface of the first joint trial and wherein one of the complementary mounting members is associated with the additional surface of the first joint trial.

30. (previously presented) The modified system of claim 29 wherein the first joint trial includes a second concave articulating surface and the additional surface adjacent to the concave articulating surface is between the two articulating surfaces of the first joint trial.

31. (previously presented) The modified system of claim 1 wherein the articulating surfaces of the first joint trial and the protector are convex and the articulating surface of the second joint trial is concave and wherein the complementary mounting members are spaced from the articulating surfaces of the first joint trial and the articulating surface of the protector.

32. (previously presented) The modified system of claim 31 wherein the first joint trial has a periphery and the protector has a periphery and the complementary mounting members are associated with the peripheries of the first joint trial and the protector.

33. (previously presented) The modified system of claim 12 wherein the articulating surfaces of the first joint trial and the protector are concave and the articulating surface of the second joint trial is convex and wherein the mating members are spaced from the concave articulating surfaces of the first joint trial and the articulating surface of the protector.

34. (previously presented) The modified system of claim 33 wherein the first joint trial includes an additional surface adjacent to the concave articulating surface of the first joint trial and wherein one of the mating members is associated with the additional surface of the first joint trial.

35. (previously presented) The modified system of claim 34 wherein the first joint trial includes a second concave articulating surface and the additional surface adjacent to the concave articulating surface is between the two articulating surfaces of the first joint trial.

36. (previously presented) The modified system of claim 12 wherein the articulating surfaces of the first joint trial and the protector are convex and the articulating surface of the second joint trial is concave and wherein the mating members are spaced from the articulating surfaces of the first joint trial and the protector.

37. (previously presented) The modified system of claim 36 wherein the first joint trial has a periphery and the protector has a periphery and the mating members are associated with the peripheries of the first joint trial and the protector.